

REMARKS

The Office Action dated March 22, 2005, has been received and reviewed.

Claims 1-25 are currently pending and under consideration in the above-referenced application, each standing rejected.

Reconsideration of the above-referenced application is respectfully requested.

Status of Related Applications

The status of the parent of the above-referenced application, as set forth in the “CROSS-REFERENCE TO RELATED APPLICATION” section of the specification of the above-referenced application, was updated in the Preliminary Amendment dated November 5, 2003.

Rejections Under 35 U.S.C. § 102

Claims 1-11 and 15-19 stand rejected under 35 U.S.C. § 102(b) for reciting subject matter which is purportedly anticipated by the subject matter described in U.S. Patent 5,972,792 to Hudson (hereinafter “Hudson”).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

With respect to inherency, M.P.E.P. § 2112 provides:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) . . . ‘To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill . . .’’ *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1991).

Hudson discloses slurries that are useful with fixed-abrasive polishing pads for planarizing copper. Col. 4, lines 50-52. Hudson does not, however, expressly describe a slurry that is useful for polishing copper and a barrier material “with the barrier material being removed at substantially the same rate or at a slower rate than copper is removed,” as would be required to anticipate each and every element of independent claim 1.

It has been asserted that the lack of an abrasive in the slurry would inherently result in slower removal of an underlying material. This is not true, however. As is well known in the art, a combination of factors, including the rate at which the material to be removed is oxidized and the presence of abrasive particles (either in the slurry or in the polishing pad), affect the rates at which different materials are removed. *See, e.g.*, Hudson, col. 3, lines 57-67. It is possible for a slurry to oxidize a barrier material that underlies copper in such a way (*e.g.*, at a rate) that causes the barrier material to be removed more quickly than the copper. Therefore, Hudson does not inherently describe that a barrier material is removed at substantially the same rate as or at a slower rate than copper.

As Hudson does not expressly or inherently describe each and every element of independent claim 1, under 35 U.S.C. § 102(b), the subject matter recited in independent claim 1 is allowable over the subject matter described in Hudson.

Each of claims 2-11 and 15-19 is allowable, among other reasons, for depending either directly or indirectly from claim 1, which is allowable.

Claim 3 is additionally allowable since Hudson neither expressly nor inherently describes a slurry that is formulated to oxidize copper at substantially the same rate as or at a faster rate than a barrier material is oxidized.

Claim 4 is further allowable because Hudson does not expressly or inherently describe a slurry in which copper and a barrier material have substantially the same oxidation energies.

Claim 5 depends from claim 4 and is also allowable since Hudson includes no express or inherent description of a slurry in which a barrier material has an oxidation energy of about 0.25 V more to about 0.20 V less than an oxidation energy of copper.

Claim 6 is further allowable since Hudson lacks any express or inherent description of a slurry in which a rate of removal of a barrier material is up to about ten times slower than a rate of removal of copper.

Claim 7 is additionally allowable because Hudson includes no express or inherent description of a slurry in which a rate of removal of a barrier material is about two to about four times slower than a rate of removal of copper.

Claim 8 is also allowable since Hudson neither expressly nor inherently describes a slurry that is formulated to remove copper and a barrier material without substantially dissolving barrier material that underlies remaining portions of copper.

For these reasons, withdrawal of the 35 U.S.C. § 102(b) rejections of claims 1-11 and 15-19 is respectfully solicited.

Rejections Under 35 U.S.C. § 103(a)

Claims 12-14 and 21-25 have been rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over that taught in Hudson, in view of teachings from U.S. Patent 6,419,554 to Chopra et al. (hereinafter “Chopra”).

With respect to rejections under 35 U.S.C. § 103(a) that are based upon references which qualify as prior art under 35 U.S.C. § 102(e), 35 U.S.C. § 103(c) provides:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

M.P.E.P. § 706.02(l)(1) indicates that 35 U.S.C. 103(c) applies to all applications which have filing or priority dates of November 29, 1999, or later:

This change to 35 U.S.C. 103(c) applies to all utility, design and plant patent applications filed on or after November 29, 1999, including continuing applications filed under 37 CFR 1.53(b), continued prosecution applications filed under 37 CFR 1.53(d), and reissues.

M.P.E.P. § 706.02(l)(3) explains that the evidentiary burden of the requirement that the subject matter and claimed invention be, “at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person” is met merely by a statement to that effect:

Applications and patents will be considered to be owned by, or subject to an obligation of assignment to, the same person, at the time the invention was made, if the applicant(s) or an attorney or agent of record makes a statement to the effect that the application and the reference were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person(s) or organization(s).

See also M.P.E.P. § 706.02(l)(2)

Priority for the above-referenced application is based upon U.S. Application Serial No. 09/651,808, filed on August 30, 2000, which predates the July 16, 2002, issue date of Chopra. Therefore, Chopra constitutes prior art only under 35 U.S.C. 102(e).

The above-referenced application has a filing date of July 14, 2003, and, therefore, may benefit from the provisions of 35 U.S.C. § 103(c).

At the time the invention disclosed in the above-referenced application and in U.S. Application Serial No. 09/651,808 was made, it was owned by or subject to an obligation of assignment to Micron Technology, Inc., as evidenced by the assignment recorded at Reel No. 011081, Frame No. 0782. Micron Technology, Inc. is the same party to which Chopra had already been assigned, as indicated by Chopra’s cover sheet.

Accordingly, Chopra may not be relied upon in a rejection of any of the claims of the above-referenced application under 35 U.S.C. § 103(a).

In any event, each of claims 12-14 and 21-25 is allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Therefore, withdrawal of the 35 U.S.C. § 103(a) rejections of claims 12-14 and 21-25 is respectfully requested.

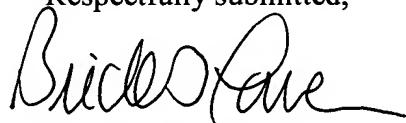
Claim 20

No grounds of rejection were presented against claim 20. Accordingly, it is presumed that the subject matter recited in claim 20 is allowable.

CONCLUSION

It is respectfully submitted that each of claims 1-25 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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